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Bhupinder S. Randhawa  
Bareskin & Parr  
Box 401  
40 King Street West  
Toronto, ON M5H 3Y2  
CANADA

EXAMINER
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BOTTS, MICHAEL K

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/933,012

Applicant(s)

WALKER ET AL.

Examiner

Michael K. Botts

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 41-55, 57-66, 75-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41-55, 57-66 and 75-82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>June 8, 2005</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This document is the first Office Action on the merits. This action is responsive to the following communications: The Request for Continuing Examination, which was filed on January 23, 2006, which was filed as a Non-Provisional Application, filed on August 21, 2001, and which claims priority to a Provisional Application, which was filed on August 21, 2000.
2. Applicants' attention is directed to the fact that a new examiner has been assigned to this case. The Examiner's name and telephone number are provided below.
3. Claims 41-55, 57-66, and 75-82 have been examined, with claim 41 being the independent claim
4. Claim 41 is objected to.
5. Claims 41-55, 57-66, and 75-82 are rejected.

### ***Information Disclosure Statement***

6. An signed and dated copy of applicant's IDS form 1449, which was filed on June 8, 2005, is attached to this Office Action. It is noted that the reference in the IDS to WO 99 33007 has been considered by the Examiner, but shall remain stricken so as to not appear on the face of the patent.

***Priority***

7. It is noted that the present application shows Richard Walker and Christopher Sonnenberg as co-inventors. The Provisional Application, filed August 21, 2000, identifies only Richard P. Walker as the sole inventor. In that Applicants claim priority to the filing date of the Provisional Application, Applicant's are requested to explain the discrepancy in inventorship in their response to this Office Action.

***The Specification***

8. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claims Objections***

9. Claim 1 is objected to because of the following informalities:

a) In claim 41, of the RCE, page 30, the subparagraph "(j)" is missing. The subparagraphs go from "(i)" to "(k)."

b) In claim 41, the designation (i) is used for the lower-case of the letter "i," and also used to represent the Roman number for "one," which renders the claim to be not clear when the "(i)" is referenced in the body of the claim. The reference to "(i)" in the body of the claim is believed by the Examiner to have been intended by the

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Applicants to refer to the sub-paragraph designated by the lower-case "i," and will be read as such for the remainder of this Office Action.

Appropriate correction is required.

### ***Claims Rejection – 35 U.S.C. 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 41-55, 57-59, 64, and 65** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray, et al. (U.S. Patent 6,529,905 B1, filed January 11, 2000) [hereinafter "Bray"], in view of Devanbu (U.S. Patent 6,681,371 B1, filed December 21, 1999) [hereinafter "Devanbu"].

Regarding **independent claim 41**, Bray in view of Devanbu teaches:

*A method for simultaneous multi-user editing of a document by a plurality of users including a first user and a second user, wherein the document includes primary data, the method comprising:*

- (a) dividing the primary data into three or more mutually exclusive sections, including a first section and a last section;*

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- (b) *storing each of the sections in a separate primary container, wherein:*
  - (i) *each of the primary containers is a sibling container;*
  - (ii) *the primary container in which the first section is stored is designated as a head primary container;*
  - (iii) *the primary container in which the last section is stored is designated as a tail primary container*
  - (iv) *the primary containers are part of a master document tree data structure stored in a file system accessible to a server; and*
- (c) *linking the primary containers to form a linked list corresponding to the order of the sections in the document, and wherein the primary container corresponding to the first section is at the head of the linked list and the primary container corresponding to the last section is at the tail of the linked list;*
- (d) *recording a link to the head primary container in the parent container;*
- (e) *recording a link to the tail primary container in the parent container;*
- (f) *transmitting a copy of at least part of the master document tree from the server to a first client operated by the first user;*

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- (g) *transmitting a copy of at least part of the master document tree from the server to a second client operated by the second user;*
- (h) *receiving a first lock request from the first client, the first lock request identifying a first group of primary containers and wherein the first group of primary containers corresponds to a first part of the document;*
- (i) *determining whether the first user may lock each of the primary containers in the first group of primary containers by at least ensuring that no primary container in the first group of primary containers is locked by a user other than the first user;*
- (k) *if the result in (i) is that the first user may lock each of the primary containers in the first group of primary containers, then:*

  - (i) *locking each of the primary containers in the first group of primary containers and identifying each of the primary containers in the first group of primary containers as being locked by the first user;*
  - (ii) *transmitting a first confirm lock message to the first client;*
  - (iii) *transmitting a first update message to the second*

- client, wherein the first update message indicates that each primary container in the first group of primary containers has been locked;*
- (iv) receiving a first post request from the first client, wherein the first post request stores a modified version of the first part of the document;*
  - (v) modifying the master document tree in accordance with the first post request; and*
  - (vi) transmitting a second update message to the second client wherein the second update message stores the modified version of the first part of the document; and*
- (I) if the result in (i) is that the first user may not lock each primary container in the first group of primary containers, then transmitting a refused lock message to the first user, wherein the parent container does not include a direct link to any of the primary containers in the linked list other than the head primary container and the tail primary container.*

(Bray teaches dividing primary data of a document into two or more sections and storing each of the sections in a separate primary container, wherein each of the primary containers is part of a master document tree data structure stored in a file system accessible to a server in figure 1, figure 3, and col. 5, lines 4-31. Bray teaches



transmitting a copy of at least part of the master document tree from the server to a first client operated by a first user and transmitting a copy of at least a part of the master document tree from the server to a second client operated by a second user in figure 1, figure 3, col. 4, lines 11-14, col. 4, line 33 through col. 5, line 3, and col. 5, line 66 through col. 6, line 1. Bray teaches receiving a first lock request from the first client, the first lock request identifying a first group of primary containers and wherein the first group of primary containers corresponds to a first part of the document in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches determining whether the first user may lock each of the primary containers in the first group of primary containers by at least ensuring that no primary container in the first group of primary containers is locked by a user other than the first user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches if the first user may lock each of the primary containers in the first group of primary containers, then locking each of the primary containers in the first group of primary containers and identifying each of the primary containers in the first group of primary containers as being locked by the first user, transmitting a first confirm lock message to the first client, receiving a first post request from the first client, wherein the first post request includes one or more new modified primary containers storing a modified version of the first part of the document, and modifying the master document tree in accordance with the first post request in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray teaches if the first user may not lock each primary container in the first group of primary containers, then transmitting a

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refused lock message to the first user in figures 5-8, and col. 6, line 58 through col. 7, line 67.

Bray does not expressly teach transmitting a first update message to the second client, wherein the first update message indicates that each primary container in the first group of primary containers has been locked or transmitting a second update message to the second client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the first part of the document if the first user may lock each of the primary containers in the first group of primary containers. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49. Bray does not expressly teach that the modified version of the first part of the document includes at least one new section. Bray also does not expressly teach that the post request, as claimed in k(iv), includes one or more new or modified primary containers.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

The amendments to claim 41 do not place it in a patentable condition. Bray teaches that the invention is not limited to the described embodiments, but is exemplary and a person skilled in the art may make variations and modifications without departing from the spirit and scope of the invention and that all such variations and modifications are intended to be included in within the scope of the invention as defined in the appended system. See, Bray, col. 10, lines 5-13.

Dividing the primary data into three or more sections, rather than two or more sections would have been obvious to one of ordinary skill in the art in that three or more sections is within the scope of two or more sections, which is taught in Bray.

The amendment to use a linked list as a data structure for the primary data, as opposed to the embodiment of a tree structure taught in Bray, would have been obvious to one of ordinary skill in the art at the time of the invention in that trees and linked lists were well known data structures for organizing related data.)

Regarding **dependent claim 42**, Bray in view of Devanbu teaches:

Bray does not expressly teach wherein the first update message also indicates that each primary container in the first group of primary containers has been locked by the first user. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the

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plurality of client users as is taught by Devanbu in the abstract, col. 3, line 6 1 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 43**, Bray in view of Devanbu teaches:

Bray does not expressly teach wherein the second update message also indicates that the one or more new or modified primary containers storing the modified version of the first part of the document have been posted by the first user. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary

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containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client user as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 44**, Bray in view of Devanbu teaches:

Bray teaches receiving a second lock request from a second client, the second lock request identifying a second group of primary containers and wherein the second group of primary containers corresponds to a second part of the document in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches determining whether the second user may lock each of the primary containers in the second group of primary containers by at least ensuring that no primary container in the second group of primary containers is locked by a user other than the second user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches if the second user may lock each of the primary containers in the second group of primary containers, then locking each of the primary containers in the second group of primary containers and identifying each of the primary containers in the second group of primary containers as being locked by the second user, transmitting a second confirm lock message to the second client, receiving a second post request from the second client, wherein the second post request includes one or more new modified primary containers storing a modified version of the second part of the document, and modifying the master document tree in accordance with the second post request in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line

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58 through col. 7, line 67. Bray teaches if the second user may not lock each primary container in the second group of primary containers, then transmitting a refused lock message to the second user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray does not expressly teach transmitting a third update message to the first client, wherein the third update message indicates that each primary container in the second group of primary containers has been locked or transmitting a fourth update message to the first client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the second part of the document if the second user may lock each of the primary containers in the second group of primary containers. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on

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primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers.

It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 45**, Bray in view of Devanbu teaches:

Bray does not expressly teach wherein the third update message also indicates that each primary container in the second group of primary containers has been locked by the second user. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.



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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 46**, Bray in view of Devanbu teaches:

Bray does not expressly teach wherein the fourth update message also indicates that the one or more new or modified primary containers storing the modified version of the second part of the document have been posted by the second user. Bray does not expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 1, line 3, and col. 6, lines 44-49.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of

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the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 47**, Bray in view of Devanbu teaches:

Bray teaches unlocking at least some of the new or modified primary containers in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67.

Regarding **dependent claim 48**, Bray in view of Devanbu teaches:

Bray teaches receiving a second lock request from a second client, the second lock request identifying a second group of primary containers and wherein the second group of primary containers corresponds to a second part of the document in figures 5-8, and col. 6, line 58 through col. 7, line 67.

Bray teaches determining whether the second user may lock each of the primary containers in the second group of primary containers by at least ensuring that no primary container in the second group of primary containers is locked by a user other than the second user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches if the second user may lock each of the primary containers in the second group of primary containers, then locking each of the primary containers in the second group of primary containers and identifying each of the primary containers in the second group of primary containers as being locked by the second user, transmitting a second confirm lock message to the second client, receiving a second post request from the second client, wherein the second post request includes one or more new modified primary containers storing a modified version of the second part of the document, and modifying the master document tree in accordance with the second post request in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray teaches if the second user may not lock each primary container in the second group of primary containers, then transmitting a refused lock message to the second user in figures 5-8, and col. 6, line 58 through col. 7, line 67.

Bray does not expressly teach transmitting a third update message to the first client, wherein the third update message indicates that each primary container in the second group of primary containers has been locked or transmitting a fourth update message to the first client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the second part of the document if the second user may lock each of the primary containers in the

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second group of primary containers. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 49**, Bray in view of Devanbu teaches:

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Bray does not expressly teach wherein the third update message also indicates that each primary container in the second group of primary containers has been locked by the second user. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3 and col. 6, lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 50**, Bray in view of Devanbu teaches:

Bray does not expressly teach wherein the fourth update message also indicates that the one or more new or modified primary containers storing the modified version of the second part of the document have been posted by the second user. Bray does expressly teach transmitting a message to a client, which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the

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plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 51**, Bray in view of Devanbu teaches:

Bray teaches wherein each corresponds to one of a character, a word, a sentence, and a paragraph in figure 3, and col. 5, lines 4-31.

Regarding **dependent claim 52**, Bray in view of Devanbu teaches:

Bray teaches wherein each section of that corresponds to one of a group of paragraphs, and a chapter in figure 3, and col. 5, lines 4-31.

Regarding **dependent claim 53**, Bray in view of Devanbu teaches:

Bray teaches wherein each separate primary container is a sibling container and wherein storing each section in a separate primary container including storing each section in a sibling container, linking each of the sibling containers to form the sibling containers in a linked list corresponding to the order of the sections of the document, recording a link to the head container in the parent container, and recording a link to the tail container in the parent container in figure 3, and col. 5, lines 4-31.

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Regarding **dependent claim 54**, Bray in view of Devanbu teaches:

Bray teaches wherein each of the sibling containers includes an article containing the text of the section corresponding to the sibling container in figure 3, and col. 5, lines 4-31.

Regarding **dependent claim 55**, Bray in view of Devanbu teaches:

Bray teaches wherein each separate primary container is a sibling container and wherein storing each section in a separate primary container including storing each section in a sibling container, linking each of the sibling containers to form the sibling containers in a doubly linked list corresponding to the order of the sections of the document, recording a link to the head container in the parent container, and recording a link to the tail container in the parent container in figure 3, and col. 5, lines 4-31.

Regarding **dependent claim 57**, Bray in view of Devanbu teaches:

Bray teaches wherein the secondary data type is different from the primary data type and wherein the embedded data is stored in a sub-tree headed by the sibling container corresponding to the one section in figure 3, and col. 5, lines 4-31.

Regarding **dependent claim 58**, Bray in view of Devanbu teaches:

Bray teaches wherein the one section also includes data of the primary data type and wherein the data of the primary data type is stored in the sibling container corresponding to the one section in figure 3, and col. 5, lines 4-31.



Regarding **dependent claim 59**, Bray in view of Devanbu teaches:

Bray teaches wherein the one section contains no data other than the embedded data in figure 3, and col. 5, lines 4-31.

Regarding **dependent claim 64**, Bray in view of Devanbu teaches:

Bray teaches wherein the document tree is part of a container tree data structure and wherein the container tree data structure includes other document trees corresponding to other documents in figure 3, and col. 5, lines 4-31.

Regarding **dependent claim 65**, Bray in view of Devanbu teaches:

Bray teaches wherein the container tree data structure has a root node and wherein each of the document trees has a parent node linked to the root node in figure 3, and col. 5, lines 4-31.

Regarding **dependent claim 78**, Bray in view of Devanbu teaches:

Bray teaches dividing primary data of a document into two or more sections and storing each of the sections in a separate primary container, wherein each of the primary containers is part of a master document tree data structure stored in a file system accessible to a server in figure 1, figure 3, and col. 5, lines 4-31. Bray teaches transmitting a copy of at least part of the master document tree from the server to a first client operated by a first user and transmitting a copy of at least a part of the master

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document tree from the server to a second client operated by a second user in figure 1, figure 3, col. 4, lines 11-14, col. 4, line 33 through col. 5, line 3, and col. 5, line 66 through col. 6, line 1. Bray teaches receiving a first lock request from the first client, the first lock request identifying a first group of primary containers and wherein the first group of primary containers corresponds to a first part of the document in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches determining whether the first user may lock each of the primary containers in the first group of primary containers by at least ensuring that no primary container in the first group of primary containers is locked by a user other than the first user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches if the first user may lock each of the primary containers in the first group of primary containers, then locking each of the primary containers in the first group of primary containers and identifying each of the primary containers in the first group of primary containers as being locked by the first user, transmitting a first confirm lock message to the first client, receiving a first post request from the first client, wherein the first post request includes one or more new modified primary containers storing a modified version of the first part of the document, and modifying the master document tree in accordance with the first post request in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray teaches if the first user may not lock each primary container in the first group of primary containers, then transmitting a refused lock message to the first user in figures 5-8, and col. 6, line 58 through col. 7, line 67.

Bray does not expressly teach transmitting a first update message to the second client, wherein the first update message indicates that each primary container in the first group of primary containers has been locked or transmitting a second update message to the second client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the first part of the document if the first user may lock each of the primary containers in the first group of primary containers. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49. Bray does not expressly teach that the modified version of the first part of the document includes at least one new section. Bray also does not expressly teach that the post request, as claimed in k(iv), includes one or more new or modified primary containers.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on

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primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 79**, Bray in view of Devanbu teaches:

Bray teaches dividing primary data of a document into two or more sections and storing each of the sections in a separate primary container, wherein each of the primary containers is part of a master document tree data structure stored in a file system accessible to a server in figure 1, figure 3, and col. 5, lines 4-31. Bray teaches transmitting a copy of at least part of the master document tree from the server to a first client operated by a first user and transmitting a copy of at least a part of the master document tree from the server to a second client operated by a second user in figure 1, figure 3, col. 4, lines 11-14, col. 4, line 33 through col. 5, line 3, and col. 5, line 66 through col. 6, line 1. Bray teaches receiving a first lock request from the first client, the first lock request identifying a first group of primary containers and wherein the first group of primary containers corresponds to a first part of the document in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches determining whether the first user may lock each of the primary containers in the first group of primary containers by at least ensuring that no primary container in the first group of primary containers is

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locked by a user other than the first user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches if the first user may lock each of the primary containers in the first group of primary containers, then locking each of the primary containers in the first group of primary containers and identifying each of the primary containers in the first group of primary containers as being locked by the first user, transmitting a first confirm lock message to the first client, receiving a first post request from the first client, wherein the first post request includes one or more new modified primary containers storing a modified version of the first part of the document, and modifying the master document tree in accordance with the first post request in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray teaches if the first user may not lock each primary container in the first group of primary containers, then transmitting a refused lock message to the first user in figures 5-8, and col. 6, line 58 through col. 7, line 67.

Bray does not expressly teach transmitting a first update message to the second client, wherein the first update message indicates that each primary container in the first group of primary containers has been locked or transmitting a second update message to the second client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the first part of the document if the first user may lock each of the primary containers in the first group of primary containers. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line

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67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49. Bray does not expressly teach that where at least one section is deleted from the first part of the document the post request includes fewer container than in the first group of primary containers.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers, of fewer or greater number depending on modifications to the sections, to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

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Regarding **dependent claim 80**, Bray in view of Devanbu teaches:

Bray teaches a link to the parent container in the tree structure, the parent container being the functional equivalent of the parent node. Bray, col. 3, line 66 through col. 6, line 41.

Regarding **dependent claim 81**, Bray in view of Devanbu teaches:

Bray teaches dividing primary data of a document into two or more sections and storing each of the sections in a separate primary container, wherein each of the primary containers is part of a master document tree data structure stored in a file system accessible to a server in figure 1, figure 3, and col. 5, lines 4-31. Bray teaches transmitting a copy of at least part of the master document tree from the server to a first client operated by a first user and transmitting a copy of at least a part of the master document tree from the server to a second client operated by a second user in figure 1, figure 3, col. 4, lines 11-14, col. 4, line 33 through col. 5, line 3, and col. 5, line 66 through col. 6, line 1. Bray teaches receiving a first lock request from the first client, the first lock request identifying a first group of primary containers and wherein the first group of primary containers corresponds to a first part of the document in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches determining whether the first user may lock each of the primary containers in the first group of primary containers by at least ensuring that no primary container in the first group of primary containers is locked by a user other than the first user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches if the first user may lock each of the primary containers in the first

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group of primary containers, then locking each of the primary containers in the first group of primary containers and identifying each of the primary containers in the first group of primary containers as being locked by the first user, transmitting a first confirm lock message to the first client, receiving a first post request from the first client, wherein the first post request includes one or more new modified primary containers storing a modified version of the first part of the document, and modifying the master document tree in accordance with the first post request in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray teaches if the first user may not lock each primary container in the first group of primary containers, then transmitting a refused lock message to the first user in figures 5-8, and col. 6, line 58 through col. 7, line 67.

Bray does not expressly teach transmitting a first update message to the second client, wherein the first update message indicates that each primary container in the first group of primary containers has been locked or transmitting a second update message to the second client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the first part of the document if the first user may lock each of the primary containers in the first group of primary containers. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of



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the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49. Bray does not expressly teach that the first group of primary containers and the second group of primary containers are mutually exclusive and wherein (p)(i) occurs before (k)(iv).

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25. The order of locking the containers and the exclusivity of the containers is not disclosed and such the requirements under claim 81 are read as non-functional descriptive language that is not further limiting of the parent claim.

**Claims 60-63, 75-77, and 82** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et al. (U.S. Patent 6,529,905 B1, filed January 11, 2000)

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[hereinafter "Bray"], in view of Devanbu (U.S. Patent 6,681,371 B1, provisional filed December 21, 1998) [hereinafter "Devanbu"], and further in view of Barlow et al. (U.S. Patent 6,275,935 B1, filed April 17, 1998) [hereinafter "Barlow"].

Regarding **dependent claim 60**, Bray in view of Devanbu and further in view of Barlow teaches:

Bray teaches receiving a second lock request from a second client, the second lock request identifying a second group of primary containers and wherein the second group of primary containers corresponds to a second part of the document in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches determining whether the second user may lock each of the primary containers in the second group of primary containers by at least ensuring that no primary container in the second group of primary containers is locked by a user other than the second user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches if the second user may lock each of the primary containers in the second group of primary containers, then locking each of the primary containers in the second group of primary containers and identifying each of the primary containers in the second group of primary containers as being locked by the second user, transmitting a second confirm lock message to the second client, receiving a second post request from the second client, wherein the second post request includes one or more new modified primary containers storing a modified version of the second part of the document, and modifying the master document tree in accordance with the second post request in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line

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58 through col. 7, line 67. Bray teaches if the second user may not lock each primary container in the second group of primary containers, then transmitting a refused lock message to the second user in figures 5-8 and col. 6, line 58 through col. 7, line 67.

Bray does not expressly teach transmitting a third update message to the first client, wherein the third update message indicates that each primary container in the second group of primary containers has been locked or transmitting a fourth update message to the first client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the second part of the document if the second user may lock each of the primary containers in the second group of primary containers. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and

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Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Bray does not expressly teach storing summary information in the parent container. Barlow does expressly teach storing summary information in a parent container in figure 12-14 and col. 20, lines 10-65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray, Devanbu, and Barlow to have created the claimed invention. It would have been obvious and desirable to have used the summary information for interactive object containers as is taught by Barlow so that a user could have quickly ascertained the contents of each container via the corresponding summary as taught by Barlow in col. 20, lines 33-53. Modified in this way, Bray would have been able to have informed client users what containers were locked or unlocked by describing the container details with transmitted container summaries.

Regarding **dependent claim 61**, Bray in view of Devanbu and further in view of Barlow teaches:

Bray teaches modifying a version of the parent container in col. 5, line 62 through col. 6, line 4, and col. 7, lines 51-67. Bray does not expressly teach storing and modifying summary information in the parent container. Barlow does expressly teach storing and modifying summary information in a parent container in figures 12-14 and col. 20, lines 10-65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray, Devanbu, and Barlow to have created the claimed invention. It would have been obvious and desirable to have used the summary information for interactive object containers as is taught by Barlow so that a user could have quickly ascertained the contents of each container via the corresponding summary as taught by Barlow in col. 20, lines 33-53. Modified in this way, Bray would have been able to have informed client users what containers were locked or unlocked by describing the container details with transmitted container summaries.

Regarding **dependent claim 62**, Bray in view of Devanbu and further in view of Barlow teaches:

Bray does not expressly teach wherein the third update message also indicates that each primary container in the second group of primary containers has been locked by the second user. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message

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includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Regarding **dependent claim 63**, Bray in view of Devanbu and further in view of Barlow teaches:

Bray does not expressly teach wherein the fourth update message also indicates that the one or more new or modified primary containers storing the modified version of the second part of the document have been posted by the second user. Bray does expressly teach transmitting a message to a client which indicates that each primary

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container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

**Claims 75-77** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et al. (U.S. Patent 6,529,905 B1, filed January 11, 2000) [hereinafter "Bray"] in view Barlow et al. (U.S. Patent 6,275,935 B1, filed April 17, 1998) [hereinafter "Barlow"]

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and further in view of Devanbu, (U.S. Patent 6,681,371 B1, provisional filed December 21, 1998) [hereinafter "Devanbu"].

Regarding **dependent claim 75**, Bray in view of Barlow and further in view of Devanbu teaches:

Bray teaches wherein at least one of the primary containers stores change tracking information in col. 7, lines 51-67.

Regarding **dependent claim 76**, Bray in view of Barlow and further in view of Devanbu teaches:

Bray teaches wherein the document also includes formatting information, and wherein the formatting information is stored in the parent container and wherein the modified version of the parent container includes modified formatting information in col. 5, lines 4-31.

Regarding **dependent claim 77**, Bray in view of Barlow and further in view of Devanbu teaches:

Bray teaches wherein the formatting information includes change tracking information in col. 7, lines 51-67.

Regarding **dependent claim 82**, Bray in view of Devanbu and further in view of Barlow teaches:



Bray teaches receiving a second lock request from a second client, the second lock request identifying a second group of primary containers and wherein the second group of primary containers corresponds to a second part of the document in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches determining whether the second user may lock each of the primary containers in the second group of primary containers by at least ensuring that no primary container in the second group of primary containers is locked by a user other than the second user in figures 5-8, and col. 6, line 58 through col. 7, line 67. Bray teaches if the second user may lock each of the primary containers in the second group of primary containers, then locking each of the primary containers in the second group of primary containers and identifying each of the primary containers in the second group of primary containers as being locked by the second user, transmitting a second confirm lock message to the second client, receiving a second post request from the second client, wherein the second post request includes one or more new modified primary containers storing a modified version of the second part of the document, and modifying the master document tree in accordance with the second post request in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray teaches if the second user may not lock each primary container in the second group of primary containers, then transmitting a refused lock message to the second user in figures 5-8 and col. 6, line 58 through col. 7, line 67.

Bray does not expressly teach transmitting a third update message to the first client, wherein the third update message indicates that each primary container in the second group of primary containers has been locked or transmitting a fourth update

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message to the first client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the second part of the document if the second user may lock each of the primary containers in the second group of primary containers. Bray does expressly teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in figures 5-8, col. 4, line 53 through col. 5, line 3, and col. 6, line 58 through col. 7, line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4, line 53 through col. 5, line 3, and col. 6, lines 44-49.

Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the

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plurality of client users as is taught by Devanbu in the abstract, col. 3, line 61 through col. 4, line 6, and col. 4, line 63 through col. 5, line 25.

Bray does not expressly teach storing summary information in the parent container. Barlow does expressly teach storing summary information in a parent container in figure 12-14 and col. 20, lines 10-65. Barlow also teaches the use of a password and an identification file for a user at col. 1, line 63 through col. 2, line 53. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray, Devanbu, and Barlow to have created the claimed invention. It would have been obvious and desirable to have used the summary information for interactive object containers as is taught by Barlow so that a user could have quickly ascertained the contents of each container via the corresponding summary as taught by Barlow in col. 20, lines 33-53, including a user's privilege. Modified in this way, Bray would have been able to have informed client users what containers were locked or unlocked by describing the container details with transmitted container summaries and granted access based on user privileges.

**Claim 66** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et al. (U.S. Patent 6,529,905 B1, filed January 11, 2000) [hereinafter "Bray"], in view of Devanbu, (U.S. Patent 6,681,371 B1, provisional filed December 21, 1998) [hereinafter "Devanbu"] and further in view of Madduri, (U.S. Patent 5,526,524, filed December 23, 1993) [hereinafter "Madduri"].

Regarding **dependent claim 66**, Bray in view of Devanbu and further in view of Madduri teaches:

Bray teaches assigning each user a unique user handle in figure 3, and col. 4, line 53 through col. 5, line 3. Bray does not expressly teach recording a user's privilege level to access a section of the document by storing the user's handle in the associated container together with any restrictions on the user's permission to access the section or wherein in determining that the first user can lock each of the primary containers in the first group of primary containers also includes ensuring that the first user's privilege level allows the first user to lock each of the primary containers in the first group of primary containers. Madduri does expressly teach recording a user's privilege level to access a section of the document by storing the user's handle in the associated container together with any restrictions on the user's permission to access the section and ensuring that the first user's privilege level allows the first user to lock each of the primary containers in the first group of primary containers in col. 4, lines 5-12.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray, Devanbu and Madduri to have created the claimed invention. It would have been obvious and desirable to have used the access control as taught by Madduri in col. 4, lines 5-12 to have only enabled authorized users to have modified the containers of Bray. This would have maintained a semblance of order as is the motivation for implemented access control as described in col. 4, lines 5-7 of Madduri.

11. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael K. Botts whose telephone number is 571-272-5533. The examiner can normally be reached on Monday Thru Friday 8:00-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MKB/mkb

A handwritten signature in black ink, appearing to read "Doug Hutton", with a stylized flourish at the end.

**DOUG HUTTON  
PRIMARY EXAMINER  
TECH CENTER 2100**